

Docket Number: 1074-045
Application No. 09/936,967
Response B

REMARKS/ARGUMENTS

Claims 1, 3 – 7, and 9 – 25 are in the application. Reconsideration is respectfully requested. Claims 7 – 18 and 20 – 25 have been allowed.

Claim Rejection under Section 102

Claims 1, 3 – 6, and 19 stand rejected as anticipated by US Patent No. 6,473,179 to Wang et al. In reply, applicant submits the following remarks.

The present invention generally relates to the development of information that shows from direct diagnostic evidence, in real time, whether and how well a photoelastic modulator (PEM) is operating. The PEM comprises an optical element that is attached to a transducer that vibrates the optical element.

The real-time information indicating the actual performance of the PEM (that is, the particulars of the retardance characteristics induced by the PEM into the light that passes through it) is provided by the claimed diagnostic system. A primary advantage of this system is that one can obtain independent confirmation that the PEM is properly functioning.

Claim 1

Claim 1 points out that the PEM includes an optical element that has a primary aperture. Primary light passes through the primary aperture of the optical element. The diagnostic system includes a light source that directs diagnostic light through the optical element of the PEM. The diagnostic light is distinct from the primary light, and the diagnostic light is directed through the optical element at a location remote from the primary aperture in the optical element.

The grounds for rejecting claim 1 assert that the Wang patent includes primary light directed through an optical element of a PEM. The grounds also assert that diagnostic light that is distinct from the primary light is directed through the optical element.

In reply, applicant notes that claim 1 specifies that the primary light and diagnostic light pass through the same optical element. In this regard, lines 5 – 6 of claim 1 specify "*a diagnostic light source for directing through the optical element diagnostic light that is distinct from the primary light...*" The broadest reasonable interpretation of the phrase "*the optical element*" in the foregoing quote is that the optical element identified there is the same optical element through which the primary light passes. The use of the definite article "the" before optical element

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requires this interpretation. Antecedent basis for this is provided in line 3 of claim 1: "*a photoelastic modulator including an optical element.*"

The rejection grounds point out an optical element (25) through which primary light passes. The rejection grounds do not, however, show where in Wang a distinct source of diagnostic light is directed through that optical element (25). Accordingly, Wang does not anticipate or suggest all of the elements in claim 1. Consequently, that claim, and the claims depending therefrom, are believed to be in condition for allowance.

Conclusion

In view of the foregoing, applicant believes that all of the currently pending claims are in condition for allowance, and an early notification to that effect is respectfully requested. If the Examiner has any questions, she is invited to contact applicant's attorney at the below-listed telephone number.

Respectfully submitted,
ipsolon llp

By 

Patrick W. Hughey
Registration No. 31,169
Tel. No. (503) 419-0704

ipsolon llp
805 SW Broadway, #2740
Portland OR 97205